AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended) A method for fabricating a semiconductor device comprising the steps of:

forming an opening in an insulation film;

forming an interconnection layer of Cu as a main material in the opening; and

concurrently spraying nitrogen gas and water in a liquid phase on the surface of the interconnection layer buried in the opening.

2. (Previously Presented) A method for fabricating a semiconductor device according to claim 1, further comprising, after the step of concurrently spraying the nitrogen gas and the water, the step of

forming a diffusion preventing film for preventing the diffusion of the Cu on the insulation film and the interconnection layer.

3. (Original) A method for fabricating a semiconductor device according to claim 2, wherein

the diffusion preventing film is an SiC film or a silicon nitride film.

4. (Previously Presented) A method for fabricating a semiconductor device according to claim 1, further comprising, after the step of concurrently spraying the nitrogen gas and the water, the step of

applying hydrogen plasmas to the surface of the insulation film and the surface of the interconnection layer.

5. (Previously Presented) A method for fabricating a semiconductor device according to claim 2, further comprising, after the step of concurrently spraying the nitrogen gas and the water, the step of

applying hydrogen plasmas to the surface of the insulation film and the surface of the interconnection layer.

6. (Previously Presented) A method for fabricating a semiconductor device according to claim 3, further comprising, after the step of concurrently spraying the nitrogen gas and the water, the step of

applying hydrogen plasmas to the surface of the insulation film and the surface of the interconnection layer.

7. (Original) A method for fabricating a semiconductor device according to claim 1, wherein

in the step of forming the opening, the opening containing a via hole and an interconnection trench formed in a region containing the via hole is formed.

8. (Original) A method for fabricating a semiconductor device according to claim 2, wherein

in the step of forming the opening, the opening containing a via hole and an interconnection trench formed in a region containing the via hole is formed.

9. (Original) A method for fabricating a semiconductor device according to claim 3, wherein

in the step of forming the opening, the opening containing a via hole and an interconnection trench formed in a region containing the via hole is formed.

10. (Original) A method for fabricating a semiconductor device according to claim 4, wherein

in the step of forming the opening, the opening containing a via hole and an interconnection trench formed in a region containing the via hole is formed.

11. (Previously Presented) A method for fabricating a semiconductor device according to claim 1, wherein

in the step of concurrently spraying the nitrogen gas and the water, the water to be concurrently injected with the nitrogen gas is carbonated water or ozonized water.

12. (Previously Presented) A method for fabricating a semiconductor device according to claim 2, wherein

in the step of concurrently spraying the nitrogen gas and the water, the water to be concurrently injected with the nitrogen gas is carbonated water or ozonized water.

13. (Previously Presented) A method for fabricating a semiconductor device according to claim 3, wherein

in the step of concurrently spraying the nitrogen gas and the water, the water to be concurrently injected with the nitrogen gas is carbonated water or ozonized water.

14. (Previously Presented) A method for fabricating a semiconductor device according to claim 4, wherein

in the step of concurrently spraying the nitrogen gas and the water, the water to be concurrently injected with the nitrogen gas is carbonated water or ozonized water.

15. (Previously Presented) A method for fabricating a semiconductor device according to claim 7, wherein

in the step of concurrently spraying the nitrogen gas and the water, the water to be concurrently injected with the nitrogen gas is carbonated water or ozonized water.